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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,190	09/29/2003	Ara Kulidjian	00100.02.0035	4146

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EXAMINER	
CHERRY, STEPHEN J	

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/674,190	KULIDJIAN ET AL.
	Examiner	Art Unit
	Stephen J. Cherry	2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5 and 7-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5,17 and 18* is/are allowed.

6)☒ Claim(s) *1, 3-4, 7-16, and 19-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-4, 7-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,740,352 to Philipp et al in view of U.S. Patent 6,323,828 to Perez.

Claim 1 recites, as disclosed by Philipp:

> 1. A method for automated testing of display signals from video graphics circuitry comprising:
>
> capturing at least one display signal ('352, col. 5, line 15);
>
> converting the display signal into at least one data acquisition signal ('352, fig. 1, output of 200);
>
> providing the at least one data acquisition signal to a test system that tests the display signal ('352, col. 8, line 7)

Claim 3 recites, as disclosed by Philipp:

> 3. The method of claim 2 wherein the data acquisition signals include at least one of the following: a vertical synchronization signal, a horizontal

synchronization signal ('352, col. 13, line 29), a data enable signal, a pixel clock signal and a voltage control signal.

Claim 4 recites, as disclosed by Philipp:

4. The method of claim 1 wherein the display signals are also transmitted to the display device ('352, col. 5, line 1, and fig. 1).

Claim 7 recites, as disclosed by Philipp:

7. The method of claim 4 wherein the display signals are transmitted to the display device using at least one of low voltage differential signaling, transition minimized differential signaling, and analog RGB signaling ('352, col. 5, line 56).

Claim 8 recites, as disclosed by Philipp:

8. The method of claim 1, wherein the display signals are generated by a computer under test and prior to capturing the display signals, the method further comprising:

providing at least one of the following: a keyboard command and a power change command, to the computer under test from a test computer to generate the display signals ('352, col. 10, line 16).

Claim 9 recites, as disclosed by Philipp:

9. A method for automated testing of display information for a display device comprising: providing a test command to a computer under test such that the computer under test generates display signals to be transmitted to the display device ('352, col. 10, line 16); capturing the

display signals to be received by the display device ('352, col. 5, line 15); converting the display signals into at least one data acquisition signal ('352, output of 200); providing the at least one data acquisition signal to the test system ('352, col. 8, line 7)

Claim 10 recites, as disclosed by Philipp:

10. The method of claim 9 wherein prior to the step of providing the test command to the computer, the method includes: providing an original command to a command converter; and generating the test command ('352, col. 10, line 23).

Claim 11 recites, as disclosed by Philipp:

11. The method of claim 9 further comprising: generating a display accuracy report ('352, fig. 3, 411).

Claim 12 recites, as disclosed by Philipp:

12. The method of claim 9 wherein the step of taking measurements of the at least one data acquisition signal includes: measuring at least one of the following: a horizontal synchronization signal, a vertical synchronization signal, a data enable signal, a pixel clock signal, a voltage command signal and a backlight signal ('352, col. 13, line 29).

Claim 13 recites, as disclosed by Philipp:

13. The method of claim 9 wherein the display signal is at least one of the following: a low voltage differential signal, a transition minimized differential signal and an analog RGB signal ('352, col. 15, line 56).

Claim 14 recites, as disclosed by Philipp:

14. An apparatus for automated testing of display signals from video graphics circuitry comprising: a printed circuit board capable of receiving display signals ('352, figs. 6a-6f, board inherent to circuit); a data acquisition signal generated by the printed circuit board from the display signals ('352, output of 200); and *a test computer configured to receive the data acquisition signal from the printed circuit board and tests the display signals* ('352, 300)

Claim 15 recites, as disclosed by Philipp:

15. The apparatus of claim 14 further comprising: a command generated by the test computer ('352, col. 10, line 16); and a command converter coupled to the test computer and a computer under test such that the command converter receives the command from the test computer, generates a test command and provides the test command to the computer under test ('352, fig. 1, 130).

Claim 16 recites, as disclosed by Philipp:

16. The apparatus of claim 15 wherein the command converter generates at least one of the following: a keystroke command and a power change command ('352, col. 10, line 16).

Claim 19 recites, as disclosed by Philipp:

19. An apparatus for automated testing of display signals from video graphics circuitry comprising: a printed circuit board capable of receiving

display signals ('352, figs. 6a-6f, board inherent to circuit); a data acquisition signal generated by the printed circuit board from the display signal ('352, output of 200); and a test computer operably coupled to the printed circuit board, the test computer including a processor operably coupled to a memory storing executable instructions such that the processor, in response to the executable instructions: generates a command to be provided to a computer under test; recieves the data acquisition signal ('352, 300);

Claim 20 recites, as disclosed by Philipp:

20. The apparatus of claim 19 further comprising: a command converter operably coupled to the test computer, such that the command converter receives the command from the test computer and generates a test command to be provided to a computer under test ('352, fig. 1, 130).

Phillip does not explicitly disclose taking time interval measurements of the data acquisition signals.

The claims further recite taking time interval measurements of the data acquisition signals, which is disclosed by Perez ('828, col. 4, line 51).
Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the invention of Phillip with the time interval measurement of Perez to allow the testing of VGA video outputs of computers without using the subjective judgment of an operator (see '828, col. 1, line 12). Philipp and

Perez present analogous art because they both teach testing of video display signals. Although the specification of the Philipp is directed mostly to the output for a LCD display, the system presented is also intended to test CRT displays, as disclosed at '532, col. 15, line 17.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-4, 7-16, and 19-20 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claims 5, 17 and 18 are allowed.

The following is an examiner's statement of reasons for allowance:

As indicated in the office action dated 12-14-2004.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (571) 272-2272. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJC

MICHAEL NGHIEM
PRIMARY EXAMINER

5/21/05